

362.2  
N75P

20 22 13 Wing

## PUBLIC CARE OF THE INSANE AND MENTALLY DEFECTIVE

PREVENTION AND AFTER-CARE—TWO NEW PUBLIC DUTIES \*

FRANK PARSONS NORBURY, A.M., M.D.

Alienist, Board of Administration of Illinois

SPRINGFIELD, ILL.

The more we study all of the conditions contributing to and forming a part of the fundamental factors to be considered in the problems of the prevention of mental disorders and the after-care of the insane, the more impressed we become with the correlation of biology and sociology in the discernment of the factors entering into these most important questions of to-day. That vital biologic phenomena differentiate themselves and social phenomena of equal value are present in each clinical problem, is strikingly shown at the bedside, in the study of mental disease, and in individual study of defectives. My observations have long since confirmed the dictum of Herbert Spencer that "there exists no social phenomenon which has not its roots in the phenomena of life itself." Further, clinical observations, when collected in statistical data, teach us that societies, no less than individuals, are subjected to the same great laws which govern race preservation.

In other words, the survival of the fittest is a fact and not a fancy when applied to families, communities, commonwealths and nations, as well as to individuals.

The great factors unceasingly at work which maintain race preservation, which, while essentially biologic, are also social in their selection and evolution, are variability, heredity, excessive fecundity and selection. These factors in their interaction and correlation are the silent agencies at work, which seek not only to preserve and perpetuate the race of man, but to give the fittest social conditions in his evolution.

### VARIABILITY

Variability is the universal law of organic life found throughout the gamut of life from the microorganism to and including man.

Darwin, in his "Origin of Species," and DeVries, in his comparatively recent "Theory of Mutations,"<sup>1</sup> together with the accumulated facts of the new science of eugenics,<sup>2</sup> all point to variability as biologic phenomena to be always present and always in evidence in the analysis of an individual case or collectively in families, species, communities, and in nations.

Variability, as observed in organic life, is well stated in the words of Brooks: "Living beings do not exhibit unity and diversity, but unity in diversity."

\* Read before the Third Annual Conference of the National Association of Public Relief Officials, Cleveland, Ohio, June 12, 1912.

12 11 13 direct

Fluctuating variations do not occur without a reason, but it is only within the past decade that laws which hold good have been formulated whereby we can anticipate more scientifically these variations, especially in plant life and in breeding domestic animals. DeVries, in his rediscovery of Mendel's law of heredity and its application, opened the way to the now intensive experimental work that is going on in the study of genetics.

We, as public officers, having to deal with the insane, feeble-minded and other defectives, are more concerned, perhaps, with the fluctuating variations which break away from the normal type on the regressive side of the line, from which types are recruited the individuals who become public wards of the state. The applicability of the study of genetics to these problems is one of the most promising new features of social pathology wherein biology again shows its important correlation with sociology.

#### HEREDITY

It is through the avenues of life, guided by the great laws of heredity, that we expect to reach the goal of our research; the fluctuating variations in humanity. Heredity is the "central theme of Biology"; it has always been conspicuous as a causative or etiologic factor in mental disorders. Thompson<sup>3</sup> well says "there are no scientific problems of greater human interest than those of heredity, that is to say, the genetic relation between successive generations."

Castle<sup>4</sup> of Harvard, one of our foremost research workers to-day in heredity, says: "The evolutionary idea has forced man to consider the probable future of his own race on earth and to take measures to control the future, a matter he has previously left largely to fate."

In order to continue and enlarge on this most important phase of the subject of prevention, and to give a working knowledge that will lead to more scientific consideration of man in his bearing, it is necessary for me to briefly touch on some of the accepted facts formulated in the laws of Weismann and of Mendel, which laws largely govern our modern science of genetics.

Weismann's theory<sup>5</sup> of the continuity of the germ-plasm is one of the main pillars of modern genetics. "Germ-plasm is the specific substance of definite chemical and molecular structure which is the bearer of the hereditary qualities." In the development of the individual a part of the germ-plasm contained in the parent germ cell is not used up in the construction of the body of the offspring, but is reserved unchanged for the formation of germ cells of the following generation. The germ cells are the real immortal part of man; they are living chips off of the germ-plasm which produced the parents. A germ-plasm is not formed afresh in every germ cell; it is by cell division the plasm is handed on by the germ cells. It is thus shown that "germ-plasm is continuous from age

1. Thompson: Heredity, p. 90, Putnam, 1908.

2. Francis Galton: Eugenics; Its Definition, Scope and Aims, Macmillan & Co., 1907.

3. Thompson: Heredity, Putnam, 1908.

4. Heredity, D. Appleton & Co., 1911.

5. Weismann: The Evolutionary Theory, 2 vols., Arnold, 1904.

to age." It is therefore necessary that we know the family stock, as well as the individual, when we study cases of mental disorder. We are all chips off of the family tree — instead of the family block.

Mendel's law of heredity<sup>6</sup> includes three principles:

1. The existence of unit characters. By that is meant that the total inheritance of an individual is made of unit characters, each of which is independent and capable of being studied alone and without reference to any of the other units.

2. Dominance, in which in the inheritance of unit characters there is supposed to exist in the germ-plasm certain substance which is the determiner or dominant character.

As regards unit characters they may be in any individual dominant or recessive; dominant when the unit character, as predetermined by the determiner, is in evidence; recessive when not conspicuous because of the absence in the germ-plasm of the determiner.

3. Segregation, which according to Castle means segregation of the units contributed by the respective parents and found among the gametes formed by the offspring. The principles of dominance and segregation apply to the inheritance of many characters in animals and plants.

Bateson says "segregation was the essential discovery which Mendel made and we now know it is one of the normal phenomena of Nature." It is segregation which determines the regularity perceptible in the hereditary transmission of differences. It defines the units concerned in the constitution of organisms and provides the clue by which an analysis of the complex heterogeneity of living forms may be begun. We are especially interested in the research work pertaining to this feature of the laws of heredity. It is by the study of segregable units that we will be able to formulate observations to guide us in the study of prevention of feeble mindedness, epilepsy, deaf-mutism, insanity, etc. Whether or not feeble mindedness of certain types is a unit character, or that deaf-mutism, in certain forms, is a unit character seems to be one of the solutions which these studies promise to reveal to us. Human breeding, guided by such information, will in due time be regulated more insistently and consistently by law. The trend of modern inquiry, under the stimulus of the American Breeders Associations, is to make the family pedigree a virile factor in individual study both from the standpoint of biology and sociology.

The mendelian methods are applicable to a wide range of knowledge useful not only in a clinical way, but in the social pathologic problems with which we have to deal.

As an example take the recent studies of Rosanoff and Orr,<sup>7</sup> a most useful and constructive contribution to the literature on heredity in mental disorders. The clinical observations of these workers in this new field of research show the relationship of the neuropathic equivalents with their very varied manifestations as factors in etiology of mental disorders.

6. Bateson : Mendel's Principles of Heredity, 1904.

7. Am. Journal of Insanity, lxviii, No. 2. p. 221.



The neuropathic constitution is shown by them to be transmitted from generation to generation in the form of a trait, which is, in the mendelian sense, recessive to the normal condition.

Neuropathic conditions show only in one-fourth of the cases indications for commitments to sanatoriums or public institutions. The total incidence on neuropathic conditions may be roughly estimated as affecting between 1.5 and 2 per cent. of the general population.

It is further estimated that about 30 per cent. of the general population without being actually neuropathic, carry neuropathic taint from their ancestors and are capable under certain conditions of transmitting the neuropathic make-up to their progeny.

I would have liked to quote all of the conclusions of these observers. Sufficient has, however, been shown to confirm the more or less empirical observations made by myself and also noted in the statistical data of institutional reports, that the hereditary factor is actively present in about one-fourth of all cases and potentially present in from one-third to one-half of all cases. These observations, too, assist in teaching us the need of the family pedigree studied in detail, if we ever expect to use efficient methods of prevention found in the regulation of marriage and births.

I could go further in commenting on heredity, showing the contributory knowledge which the laboratory workers, the statistician, the experimentalist, the sociologist in field work and others are gleaning for us from the waiting fields of research, but time will not permit. I want to emphasize, however, that it is such knowledge which now does, and will, more so, in the future, give us positive hope to regulate by prevention of the breeding of defectives. Further, the information we now have enables us to give council regarding the mating in marriage of individuals who recognize their duty to posterity and are willing to be guided by forethought. I, for one, hope to see the field workers from the Eugenics Section of the American Breeders Association attached to every hospital and institution where family pedigrees and social factors are paramount in solving the problems of prevention.

It is only by such studies that we can recognize the workings of the next great law, that of selection, in our social and biologic problems.

#### SELECTION

Selection is constantly at work both through the means of natural selection as determined by Nature, and artificial selection as determined by man. We have evidences of the results of selection at least, even if we do not know all of the ways and means of the working of the laws of selection. These evidences are to be noted in the accumulation and custodial care of the insane in our institutions; in the waiting lists at our institutions for feeble minded and the number of delinquent and dependent boys and girls in our state training schools. These evidences also show that selection plays a rôle in sociology no less important than in biology. Natural selection works largely through disease as the agent. We have but to read the history of civilization to note the remote result

that every race is resistant to every disease in proportion to the length and severity of its past experience to it. Archdall Reid,<sup>8</sup> in his masterly book on "Heredity," shows that natural and artificial selection are essentially unlike. Nature and man do not select the same class of unit characters; and disease is especially stringent as a selective agent. Through it the weak are weeded out and the survivors, by reason of developed resistance to disease, adapt themselves to conditions under which they must live. It follows, therefore, that Reid's dictum is true, that the only progress, the only considerable racial progress that civilized human races undergo, is one against disease.

To make progress, the individual, the family, the community, the race must be alert to the modern propaganda of preventive medicine and its wondrous victories, especially along the lines of the infectious diseases. Life, left to itself, will not enter the path of progress and individuals as biologic units and communities as social units will not progress unless kept constantly under the stimulus of action, of research, of applied, useful, scientific knowledge.

Even in spite of such knowledge the lethal influence of adverse local social conditions permits the tolerance of agencies which paralyze social power and usefulness. These are found in the prevalence of alcoholism, syphilis, tuberculosis and infectious diseases in general.

The powerful agencies just mentioned are selective in separating the fit from the unfit. The waste heap of humanity (as some one calls the unfit) accumulated through these agencies, are found as custodial charges in state hospitals and other institutions; as delinquents in workhouses, bridewells, jails, etc., and dependents in county homes, almshouses, etc., all evidences of the working of the laws of selection.

The social misery thus represented is within the possibilities of prevention, or at least regulation, through educational ways and means under the guidance of the new propaganda of prevention, the "war cry" of to-day.

To prevent the multiplication of biologically and morally degenerate classes from which most such cases are recruited, is one of the newer problems given us as a possibility in the ideals, at least, of the new science of eugenics. We have not the time to consider this phase of the subject, viz., the checking of reproduction of the lower class of population as a whole. We must, however, not forget in our consideration of the problem of regulation of the multiplication of the unfit, that the biologic factor, as found in the germ-plasm, is the essential, the paramount factor for consideration. In other words, it is the stock as well as the individual which must be regulated.

Our great institutions will always be filled, our city courts crowded, and the defectives with all of the problems of social misery which they entail, be ever a constant source of demand and consideration on the part of public agencies for relief, so long as the multiplication of the unfit and the undesirable continues. "Physiologic misery, moral misery

---

8. Heredity: Chapman and Hall, London, 1905.

and economic misery" are the trail of the unfit which we, as public officers, must follow in our endeavor to give the relief which modern humanitarianism demands.

Underlying every social problem we find a moral problem, and underlying all problems we find, as Huxley says, the financial or economic basis. We are thus brought face to face with the imperative necessity of supplying, as Hill<sup>9</sup> says, a "suprarational" principle, capable of coordinating all of the activities of the heterogeneous elements composing society and guiding them toward the realization of a common aim.

Solidarity, Hill remarks, cannot be attained in a materialistic society where each class shuffles for himself. The masses who toil will never interest themselves in the welfare of society so long as economic conditions are unjust; in order to interest the masses their interests must be as paramount as the interests of society as a whole; they must be shareholders and enter into this spirit of cooperation to promote social happiness (the ultimate aim of all agencies); to give moral and physiologic relief to misery and to solve the thousands of individual problems ever confronting the workers in the social service of to-day. The power of expansion of social evolution, of social fitness, is in the last analysis found in the necessity for a spiritual organization wherein will be recognized the value of individual life, but which, above all, will regulate that individual life to best subserve the interests of the race as a whole.

This is the "suprarational ideal" — the principle on which is founded the ways and means of prevention of mental disease.

We must recognize that mental diseases, while having definite causes, are nevertheless the results of selective agencies at work for the preservation of the species man, but we can regulate conflict which both biologically and socially leads to disintegration and death.

To give application to our "suprarational ideal" requires that we study all ways and means which promote race expansion, again considering the biologic and social aspects of the problems. Social fitness will be found to be as necessary as organic fitness and that the greatest agency for promoting and maintaining social fitness will be found in religion. Biology can select the physical factors to be preserved, and preventive medicine will lead the way to preserve health and well-being, but the moral factors, ever and truly great powers for good, must be conserved and expanded through the religious training.

Religion is an imperative necessity to man's welfare in preserving the integrity of social fitness and race development. Chatterton Hill well says: "In order to realize expansion, in order to go forth conquering and to conquer, a nation must possess an adequate spiritual organization guaranteeing its integration and spirituality; but, on the other hand, a nation capable of great expansion is necessarily a nation of biologic superiority."

The newer phases of our problems, then, are reducible to the promulgation of the propaganda of prevention as applied to disease, the new

---

9. Chatterton Hill: *Heredity and Selection in Sociology*, A. & C. Black, 1907.

science of eugenics<sup>10</sup> as applied to the multiplication of the fit, the science of sociology as applied to social fitness, and the cultivation of the traditional powers of religion in preserving moral integrity and implanting practical ideals in right living.

#### AFTER-CARE

Prognosis in mental diseases is the one great unsolvable problem of clinical psychiatry. It is an individual problem, dependent on close scrutiny and analysis of all factors which enter into the causes of mental disease, of which heredity, environment, previous health-history (including accidents) the possible presence of syphilis, the history of habits of which alcoholism, drug usage, modes of living, etc., are the essential and prominent active factors in causation. Without this full knowledge of causes — a full knowledge of the family tree, the ways of living and the doings of the individual, we cannot forecast the future. Even with this knowledge every alienist of experience knows how limited is his own range in attempting to give a prognosis. He does know, however, how necessary it is in an individual case, when apparent recovery occurs, to use every means possible to safeguard that individual from causes which may lead to recurrence of active mental symptoms, with the chances being that a more prolonged and perhaps more severe attack will result, and that mental death, "dementia," be the finality.

After-care, therefore, is a necessity in mental disease just as it is in other diseases, and after surgical procedures.

The modern surgeon looks on care after an operation as requiring as much consideration as the operation itself.

The modern physician, under the stimulus of such an active clinician as Richard Cabot<sup>11</sup> of Boston, likewise gives great thought to the after-care of his patients. Even after acute illness has subsided, especially considerate is he of those individuals suffering from chronic illness, who, from time to time, need hospital care or who, as semi-invalids, need watchful care and guidance in their homes.

It is in the large public hospitals of the metropolis that after-care has been developed in the problems of the sick. Social service is now recognized as the right arm of the great after-care movement inaugurated but a few years ago in Boston by Cabot, and now a feature in most metropolitan hospitals. This great movement seeks to give care to the individual in all of the demands which sickness entails in a family. The social worker is the agent to seek and analyze information which will contribute to the recovery and promote the general welfare of the patient. The patient is studied carefully as one who is sick; he is studied as an individual unit in the environments where he lives; he is studied as a social unit with reference to the welfare of the other individuals with whom he comes in contact and with reference to the multiplication of his kind through regulation of births in his family. In short, after-care has become a vital factor in the social and medical problems of to-day.

10. Charles B. Davenport: *Heredity in Relation to Eugenics*, Holt, 1911.

11. Richard Cabot: *Social Service*, 1910.





3 0112 077658919

What has been done in medicine in general can be done in mental medicine in particular. Some attention has been given to the needs of mental cases, especially in New York<sup>12</sup> and Connecticut,<sup>13</sup> and other states have tentative measures, largely administered through private organizations, for giving aid in "after-care" of mental cases. "The Society of Mental Hygiene" has made this one of the pillars in its organization. Illinois has incorporated in the law creating the Board of Administration a clause providing in a general way for after-care, but thus far, because of lack of funds, this provision of the law has not become active.

The after-care problems to be solved will, in my judgment, require trained social workers, just as in the social service work of the metropolitan general hospitals.

We need workers who can analyze the needs of each individual case, who can not only see but direct, who can understand the potential powers of environment and modes of living as agencies which mar or uplift the patient; who know the principles of heredity and who can observe the workings of these laws in a general way according to their modern mendelian application; who know the dangers of venereal diseases, of diseases in general, of the ravages of alcoholism and the power it possesses in race degeneracy.

After-care demands all of such information and more; it demands a spirit of service, of true missionary spirit and belief in the powers of the moral regeneracy of the individual.

Social evolution, biologic efficiency, religious inspiration and the uplift which hope generated through wise consideration of all these agencies will give confidence and well-being to that great class, the neuropathic, from whom are recruited, directly or indirectly, at least one-half of our patients.

Again, after-care will require the cultivation of public opinion, leading to the regulation of marriage of the feeble-minded, the epileptic, the alcoholic, the infected and otherwise unfit individuals. It means, too, the segregation of the feeble-minded women during the child-bearing period of life. It means state care of the epileptic and ultimately, I believe, of alcoholics. Each state should see to it that the after-care movement may be made effective and the organization, however inadequate, be at least started to make possible the ways for a larger and broader field actively along this line in the future.

The new phases of prevention and after-care are much alike in that they embrace all problems coming within their scope as correlated through the sciences of biology and sociology. To solve them means years of patient educational service, reaching, most of all, the masses and then individualizing to meet the wants of each particular case.

We, as public officers, must be in touch with all of the lines of advancement which seek to promote social evolution, and of these, prevention and after-care stand prominently forth as potential agencies needing our earnest consideration.

12. Hoch: *Social Side of Psychiatry*, Report State Board Charities, N. Y., 1910.

13. Beers: *id.*, p. 838.